GIA Environmental Health and Safety Industrial Hygiene Program Elements Standard

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ABSTRACT: The purpose of this GIA standard is to define the basic elements and responsibilities of an effective industrial hygiene program.

APPLICABILITY: This standard shall apply to GIA facilities and operations worldwide unless superseded by more stringent country and/or local regulations.

STATUS: APPROVED 24-Jun-1991; use VTX SMC for current status.

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Responsible Department:		GIA Manufacturing and Engineering
Responsible Person:		Jerry Gaudet
Author:		Michael B. Amster
SMC Writer:		Eric Falkof

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Jerry Gaudet - GIA Environmental Health and Safety

Direct requests for further information to:

Karen Crawford
Use $ VTX ELF for the latest location information.

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1 INTRODUCTION

The purpose of this GIA standard is to define the basic elements and responsibilities of an effective industrial hygiene (IH) program.

1.1 SCOPE

This standard shall apply to GIA facilities and operations worldwide unless superseded by more stringent country and/or local regulations.

1.1.1 Policy

An IH program shall be established and shall include provisions for the anticipation, recognition, evaluation, and control of health hazards in the work environment.

1.2 RESPONSIBILITIES

This subhead describes the responsibilities of the persons involved in fulfilling the requirements of this document.

- Site Managers

  Ensure that a proactive IH program is developed and implemented, its elements are communicated to those potentially effected, and necessary training is conducted.

  Assignment of an EH&S staff manager to carry out and communicate program regulations, policies, standards, procedures, and guidelines to management and employees.

  Provision of staffing and budget commensurate with site IH needs and requirements.

- Department Managers/Supervisors

  Implement the elements of the IH program as it affects their department.

- Health Services

  Work collaboratively with EH&S to develop and implement necessary medical surveillance programs.

- Site Environmental Health and Safety (EH&S)

  Assist management and consult in the development, operation, and maintenance of the site IH program

1.3 DEFINITIONS

Chemical agent	Gas (gas, vapor), liquid (aerosol, mist, solution), and solid (dust, particulate, fume, smoke)
Biological agent	Pests (insects, mites, rodents), molds, yeasts, fungi, bacteria, and viruses
Ergonomics	The science/art of fitting the work place to the employee
Health hazard	Exposure to chemical, physical, biological, or ergonomic agents or stressors in the work environment that may impact health

Personal Protective Equipment (PPE)	PPE may include but not be limited to the following. Head protection Hearing protection Face and eye protection (see *GIA Environmental Health and Safety Eye Protection Standard, EL-MF742-00*) Respiratory protection (air purifying and air supplied) Safety belts and life lines Protective footwear Dermatological protection Specialized emergency response equipment (see *GIA Environmental Health and Safety Emergency Response Plan Standard, EL-MF743-00*) Special work clothing, aprons, and gloves	
Physical agent	Ionizing and nonionizing radiation, static electric and magnetic fields, lasers, noise, vibration, and extremes of temperature and pressure	
	Ionizing radiation	Alpha, beta, gamma, X-ray, and neutron radiation
	Nonionizing radiation	Power frequencies, radio and sub-radio frequencies, microwaves, infrared radiation, visible light, and ultraviolet radiation
	Lasers	Within the infrared, visible, or ultraviolet portion of the electromagnetic spectrum
	Noise	Any undesirable sound including airborne, upper sonic, and ultrasonic acoustic radiation
	Vibration	Whole body and segmental vibration applied locally to a specific body part
	Temperature extremes	Heat and cold stress
	Pressure extremes	Hyperbaric (greater than at sea level) and hypobaric (less than at sea level) environments

1.4 LANGUAGE REQUIREMENT FOR THIS STANDARD

The details of this standard and all documentation associated with it, such as manuals, training materials, signs, labels, postings, and so forth, must be available in English and the accepted and official local languages.

2 PROGRAM ELEMENTS

This section describes the elements of an IH program, including anticipation, recognition, evaluation, and control.

2.1 ANTICIPATION AND RECOGNITION

An IH program anticipates and recognizes health hazards in the workplace and shall, at a minimum, require the following elements as applicable.

Institute a review and approval process for new or modified equipment, installations, processes, facilities and/or ventilation systems.

Institute a chemical procurement and management process that includes a documented hazard assessment for new chemicals introduced to the work place, and as is required for existing chemicals. (See proposed *GIA Environmental Health and Safety Chemical Safety Standard, EL-MF747-00.*)

Conduct scheduled surveys of ventilation (local exhaust and general) and other control systems, such as noise abatement measures, radio frequency shielding, equipment interlocks, and so forth, to ensure compliance with design specifications.

Institute programs and practices to ensure the proper selection, use, and maintenance of PPE.

Assist in the formulation and implementation of the site Emergency Preparedness Plan, especially as relates to Spill Team training, required emergency response monitoring capabilities, and the use of PPE. (See EL-MF743-00)

2.2 EVALUATION

The IH program includes evaluation of the work environment and shall, at a minimum, require the following elements as applicable.

Conduct workplace IH evaluations to ensure that employees are not subjected to workplace health hazards

Develop baseline exposure data

Institute processes to identify potential chemical, physical, biological, ergonomic stressors and agents, and emergency response contingency planning requirements for workplace hazards. These may include, but are not limited to, the following,

Routine workplace evaluations, including exposure monitoring
Inventories
Self-audits
Inspections

Evaluation techniques may include, but are not limited to, the following.

Basic characterization of the work environment and the work force.

Qualitative risk assessment and prioritization of exposures, agents, exposure groups, and monitoring plan. This applies to routine hazards as well as those that can be foreseen and those that may result from accidents or emergency response situations.

Personal, area, and/or biological monitoring.

Interpretation of monitoring results, decision making, and the development of recommendations and control alternatives based on applicable occupational limits and other available data such as consensus standards, and applicable toxicology information.

Documentation and reporting.

Periodic review and re-evaluation of the work environment.

Sampling, calibration, and analytical methods shall be consistent with specific regulations, requirements, and/or generally accepted professional practice.

2.3 CONTROL

The IH program shall apply methods and techniques to eliminate, control, and/or reduce employee exposure to potential health hazards in the work environment, and shall, at a minimum, include the following elements, as applicable.

Control

Engineering/process controls are the favored method of control and include, but are not limited to the following.

Use of a less harmful material instead one that is more hazardous
Process change to minimize worker contact
Isolation and/or enclosure
Use of wet methods to reduce dust generation
Use of local exhaust ventilation at the point of contaminant generation
Good housekeeping

Personal protective equipment

PPE is for use when potential exposure to workplace hazards cannot be sufficiently controlled using engineering methods or during periods of short-term high exposure (such as during spill response, cleaning operations, and so forth)

PPE must be properly chosen for the specific work environment and used only with the proper training.

PPE does not reduce or eliminate the actual hazard in the workplace.

Administrative controls

Administrative controls are not a preferred method of employee protection.

Employee exposure is maintained below applicable occupational limits by job scheduling and/or rotation.

Employees shall be removed from an area once the occupational limit is reached.

2.4 COMMUNICATION

Training programs shall be developed and presented to inform employees and management and shall, at a minimum, include the following elements, as applicable.

Potential workplace health hazards

Safeguards in place and necessary actions for their use and maintenance

Required practices, procedures, and PPE to prevent and/or reduce exposures

Emergency response responsibilities

Procedures and practices shall provide for employee access to exposure records.

3 RESOURCES AND PROGRAM ADMINISTRATION

There shall be an adequate level of staffing and support, commensurate with the size of the site and the magnitude of potential exposures, and shall, at a minimum, include the following elements, as applicable.

IH personnel or capability with appropriate qualifications, experience, and skills

Development and maintenance of a system to ensure the development and retention of the required documentation, record keeping, and reporting practices and procedures

Compliance with local and/or country regulations and company policies and standards as minimum program objectives

Development of mechanisms to receive and respond to employee complaints and/or concerns regarding potential workplace health hazards and what is being done for their protection (See *GIA Environmental Health and Safety Employee Right-To-Know Standard, EL-MF745-00*)

APPENDIX A REFERENCED DOCUMENTS

A.1 EL-Class Digital Documents

EL-Class Number	Document Title
EL-MF742-00	*GIA Environmental Health and Safety Eye Protection Standard*
EL-MF743-00	*GIA Environmental Health and Safety Emergency Response Plan Standard*
EL-MF745-00	*GIA Environmental Health and Safety Employee Right-To-Know Standard*
EL-MF747-00	*GIA Environmental Health and Safety Chemical Safety Standard*

Use VTX SMC to order copies of EL-class documents from Standards and Methods Control. Send distribution questions to JOKUR::SMC or call DTN: 234-4423.

GIA Environmental Health and Safety Chemical Safety Standard, EL-MF747-00 is under development. See VTX SMC for status.

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